

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims

1. (Previously Presented) A retroviral vector comprising one or more promoters inserted in antisense orientation within the 5' long terminal repeat (LTR) region and one or more coding sequences inserted in antisense orientation within the 3' LTR region, both the promoter as well as the coding sequence inserted in such a way as to ensure that the promoter and the coding sequence become duplicated during the process of reverse transcription in a target cell and appear in the 3' as well as the 5' LTR region of the resulting provirus in a fashion where the promoter is located upstream of the coding sequence and drives expression of the coding sequence.
2. (Previously Presented) The retroviral vector according to claim 1, wherein said one or more promoters is inserted within the U5 region of the 5' LTR.
3. (Previously Presented) The retroviral vector according to claim 1, wherein said one or more coding sequences is inserted within the U3 region of the 3' LTR.
4. (Previously Presented) The retroviral vector according to claim 1, wherein said one or more coding sequences comprises DNA which is heterologous to the vector.
5. (Previously Presented) The retroviral vector according to claim 4, wherein said one or more coding sequences is selected from one or more elements of the group consisting of marker genes, therapeutic genes, antiviral genes, antitumour genes, cytokine genes, toxin genes and combinations thereof.

~~4~~ 6. (Previously Presented) The retroviral vector according to claim 1, wherein said one or more promoters is a constitutive promoter.

~~8~~ 7. (Original) The retroviral vector according to claim 1, wherein said retroviral vector is replication-defective.

~~9~~ 8. (Original) The retroviral vector according to claim ~~7~~ 8, wherein said retroviral vector is based on a vector of the pLXSN family.

~~5~~ 9. (Original) The retroviral vector according to claim 1, wherein said retroviral vector is based on a promoter conversion vector.

10. (Previously Presented) A recombinant retroviral vector system comprising:

a) a retroviral vector comprising one or more promoters inserted in antisense orientation within the 5' long terminal repeat (LTR) region and one or more coding sequences inserted in antisense orientation within the 3' LTR region, both the promoter as well as the coding sequence inserted in such a way as to ensure that the promoter and the coding sequence become duplicated during the process of reverse transcription in a target cell and appear in the 3' as well as in the 5' LTR region of the resulting provirus in a fashion where the promoter is located upstream of the coding sequence and drives expression of the coding sequence, and

b) a packaging cell line harbouring at least one retroviral construct coding for proteins required for said retroviral vector to be packaged.

11. (Previously Presented) A retroviral particle produced by transfecting a packaging cell line of a retroviral vector system with a retroviral vector comprising one or more promoters inserted in antisense orientation within the 5' long terminal repeat (LTR) region and one or more coding sequences inserted in antisense orientation within the 3' LTR region, both the promoter as well as the coding sequence inserted in such a way as to ensure that the promoter and the coding

sequence become duplicated during the process of reverse transcription in a target cell and appear in the 3' as well as in the 5' LTR region of the resulting provirus in a fashion where the promoter is located upstream of the coding sequence and drives expression of the coding sequence, and isolating the resulting retroviral particle.

12. (Currently Amended) A recombinant retroviral provirus produced by the infection of target cells with a recombinant retroviral particle according to claim 11.

13. (Cancelled)

14. (Cancelled)

¹³ 15. (Original) A host cell infected with a retroviral particle according to claim 11.

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

¹⁴ 22. (Previously Presented) A retroviral vector comprising one or more promoters inserted in antisense orientation within the U5 region of the 5' long terminal repeat (LTR) region and one or more coding sequences inserted in antisense orientation within the U3 region of the 3' LTR region, both the promoter as well as the coding sequence inserted in such a way as to ensure that the promoter and the coding sequence become duplicated during the process of reverse transcription in a target cell and appear in the 3' as well as in the 5' LTR region of the resulting provirus in a fashion wherein the promoter is located upstream of the coding sequence and drives expression of the coding sequence.

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~~23.~~ (Previously Presented) The retroviral vector according to claim ¹⁴~~22~~, wherein said one or more coding sequences comprises DNA which is heterologous to the vector.

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~~24.~~ (Previously Presented) The retroviral vector according to claim ¹⁵~~23~~, wherein said one or more coding sequences is selected from one or more elements of the group consisting of marker genes, therapeutic genes, antiviral genes, antitumour genes, cytokine genes, toxin genes and combinations thereof.